

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/06039

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01L21/336

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 471 628 A (GTC KK) 19 February 1992 (1992-02-19)	12, 13
Y	column 5, line 35 -column 6, line 39; claim 17; figures 1-3	1-6, 9-11
A	---	7, 8
Y	US 2002/187592 A1 (WONG JIA-FAM) 12 December 2002 (2002-12-12) figures 2E-2H	1-6, 9-11
A	---	
A	US 2002/102855 A1 (VAN DER ZAAG PIETER J ET AL) 1 August 2002 (2002-08-01) paragraph '0056!	1
A	---	
A	US 6 486 010 B1 (HSU PO WEN) 26 November 2002 (2002-11-26) figure 5C	5
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

30 March 2004

Date of mailing of the international search report

06/04/2004

Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/06039

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 009, no. 295 (E-360), 21 November 1985 (1985-11-21) &amp; JP 60 133758 A (SUWA SEIKOSHA KK), 16 July 1985 (1985-07-16) abstract</p> <p>-----</p>	1

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1

Present claim 1 relates to an extremely large number of possible methods.

In fact, the claim contains so many options (e.g. the choice of the materials) and possible permutations that a lack of clarity and conciseness within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. In particular, it is not clear which kind of device is fabricated. The application discloses however only a method of forming a bottom gate TFT device.

Consequently, the search has been carried out for those parts of the application which do appear to be clear and concise, namely to a method of forming a bottom gate TFT transistor using two patterned layers (25,28) formed by printing and using subsequent etching steps to define the source/drain regions and the channel of the TFT as shown in Figures 4a-4f and corresponding text.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

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PCT/IB 03/06039

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/06039

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0471628	A	19-02-1992	JP 2587124 B2 JP 4094115 A EP 0471628 A1	05-03-1997 26-03-1992 19-02-1992
US 2002187592	A1	12-12-2002	TW 488080 B JP 2003045893 A	21-05-2002 14-02-2003
US 2002102855	A1	01-08-2002	EP 1364250 A1 WO 02059690 A1	26-11-2003 01-08-2002
US 6486010	B1	26-11-2002	NONE	
JP 60133758	A	16-07-1985	NONE	